



PROCEEDINGS
OF THE
LINNEAN SOCIETY
OF
NEW SOUTH WALES,

WEDNESDAY, MARCH 31st, 1909.

The Thirty-fourth Annual General Meeting, and the Ordinary Monthly Meeting, were held in the Linnean Hall, Ithaca Road, Elizabeth Bay, on Wednesday evening, March 31st, 1909.

ANNUAL GENERAL MEETING.

Mr. A. H. S. Lucas, M.A., B.Sc., President, in the Chair.

The Minutes of the preceding Annual General Meeting (March 25th, 1908) were read and confirmed.

The President delivered the Annual Address.

PRESIDENTIAL ADDRESS.

The year we are now concluding has been one of quiet and steady work, unmarked by any special departure from our usual programme. In numbers we have made a small increase, ten Ordinary Members having been elected during the year, while we have lost two Associate Members by resignation and two Ordinary Members by death. Sir Arthur Renwick and Sir John Hay were both men of mark in the community. They were not actively or directly interested in any particular branch of science,

but their connection with this Society was evidence of appreciation, on the part of two broad-minded, far-seeing men of affairs, of what Science stands for, and of the necessity for its cultivation, in a young community in which the natural resources are in a comparatively early stage of development, and need to be dealt with wisely, and with due regard to the experience which has been gained in older countries.

Sir Arthur Renwick's claims upon public gratitude rest upon a wide foundation—his long connection with the University as a very active Member of the Senate, and for some time Vice-Chancellor; his close association with the management of a number of the leading Charitable Institutions, and especially the Sydney Hospital, the Benevolent Society of New South Wales, the Royal Hospital for Women at Paddington, the Institution for the Deaf and Dumb, and Blind, and the State Children's Relief Department; his public services, as a Member of the Lower House for some years, and for a time Minister for Mines, subsequently Minister for Education, and latterly Member of the Upper House. Sir Arthur, a medical man of long and high standing, joined the Society in 1905. His death took place on 23rd November, 1908, in his 72nd year.

Sir John Hay joined the Society in 1899. He was best known to us as the successor to the famous Berry Estates in the Shoalhaven District and elsewhere. The opportunity of taking the lead in developing the capabilities of the celebrated Shoalhaven District, and of furthering closer settlement was readily accepted by him, and was utilised in a manner which did credit alike to heart and brain. Sir John Hay died on 26th February, 1909, in his 69th year; and he is widely and sincerely mourned.

The Treasurer's statement last year was made by the Secretary on behalf of Mr. J. R. Garland, who was at that time, to the great regret of the Society, laid aside by severe indisposition. So serious indeed was his illness, that Mr. Garland reluctantly felt compelled to retire from the office of Treasurer, and the Society with equal reluctance accepted the resignation. In May, the Council accordingly elected Mr. J. H. Campbell, of the Imperial

Mint, to succeed Mr. Garland as Treasurer. Mr. Campbell had speedily shown a complete mastery of the financial affairs of the Society, and had inspired confidence that the accounts were in capable hands. At the same time we are glad to know that Mr. Garland has quite recovered his health and strength, and is able to assist the Council with his advice and experience.

In October, at a Special General Meeting, it was decided to amend Rule xlv. relating to the annual audit of the Society's accounts. On the motion of the Hon. Treasurer, Mr. Campbell, seconded by Mr. T. Steel, it was resolved that the Rule should read—xlv. The accounts of the Treasurer shall be audited annually, a short time before each Annual Meeting, by an Auditor, not a Member of the Society, who shall be a Public Accountant actively practising his profession, and who shall have been elected at the previous Annual or a Special General Meeting, . . . and the accounts so audited, with the Report of the Auditor, shall be laid before the Society at each Annual Meeting.

Due acknowledgment was made of the indebtedness of the Society to the Members who had acted as Honorary Auditors in the past, and had served the Society with courtesy and readiness, often at considerable personal inconvenience, but it was felt that the appointment of a single outside and professional Auditor would result in the saving of time and in the simplification of the arrangements for the annual audit. The new arrangement had accordingly come into force.

The results of the labours of Members during the year appear in a volume of over 900 pages—the thirty-third of the series—which had been promptly completed and distributed. It comprised thirty papers, two of them of more than average length. The Council is indebted, as on previous occasions, to Mr. C. Hedley for presenting the blocks for the illustrations of his paper, appearing in Part 3 of the Proceedings.

The work of the Macleay Bacteriologist appears in the paper published in the Proceedings upon "Opsonisation from a Bacterial Point of View and Opsonic Technique." The subject of opsoni-

sation is an important one on account of the large amount of work that is being done upon it in bacterial laboratories throughout the world, and of the benefits that are claimed to accrue to mankind from the indications which are given in the practice of the method. It may be briefly said that opsonins are the substances which exist in the blood for the purpose of so preparing infectious bacteria that they can be speedily absorbed by the phagocytes, and finally destroyed. A low opsonic content indicates a low power of resistance, and conversely a high opsonic index shows that the individual is well equipped to withstand bacterial infection. It is also possible in obscure cases to diagnose the kind of disease from the opsonic behaviour of the serum towards various bacteria. Hitherto opsonic investigation had been directed towards the serum, but the Macleay Bacteriologist turned his attention towards the bacterium, noting the effect of conditions of growth, age, temperature, and so on. Various factors which modify bacteria in their behaviour towards the opsonins were elucidated.

Dr. J. M. Petrie, Linnean Macleay Fellow of the Society in Biochemistry, during 1908, carried on his investigations on the rôle of Nitrogen and its compounds in plant-metabolism; and the first instalments of the results were embodied in two papers which appeared in the last Part of the Proceedings. Subsequently, in preparation for a third paper on the same subject, Dr. Petrie began a series of experiments with the object of attempting to differentiate the proteins by fractional precipitations, and to estimate the amounts of the amides, of amino-compounds, and certain basic compounds present in seeds. Though a number out of a rather lengthy series of experiments gave negative results, they were necessary in carrying out his projected scheme of work. In addition, Dr. Petrie has been successfully collaborating with Dr. Chapman in carrying out an investigation of the hexone bases of egg albumen. I have pleasure in announcing that the Council has reappointed Dr. Petrie to a Fellowship from the 1st proximo.

Mr. E. J. Goddard, B.A., B.Sc., Linnean Macleay Fellow of the Society in Zoology, has almost completed his first year's

tenure of a Fellowship, during which he has applied himself energetically to the study of freshwater Oligochæta and Hirudinea. Four papers dealing with exceptionally interesting or specially important forms of both groups have appeared in the second and fourth Parts of the Proceedings for 1908. Subsequent studies of these groups of a more comprehensive and systematic character are well advanced, and, in addition, the freshwater Polyzoa are engaging his attention. I have pleasure in announcing that the Council has reappointed Mr. Goddard to a Fellowship from the 1st prox.

In December last, inasmuch as the accumulation of the funds permitted it, and very promising candidates were forthcoming, the Council decided to elect a third Fellow; and I have very great pleasure in making the first public announcement of the election of Mr. Leo A. Cotton, B.A., B.Sc., in this capacity.

Mr. Cotton has had a brilliant career at the Sydney University, graduating both in Arts and in Science, and obtaining First Class Honours in Mathematics in each year, First Class Honours in Physics, the Smith Prize for Physics, the Slade Prize for Practical Physics, High Distinction in Chemistry and Physics, the Deas Thomson Scholarship in Geology, Professor David's Prizes in Geology, and the John Coutts Scholarship in Geology, and has held the position of Demonstrator in Geology during 1908. Mr. Cotton selected Geology as his branch of study, and more particularly Geology in its relation to Ore-deposition, more especially in the New England District. In entering upon his work a few days hence, Mr. Cotton may rest assured of the Society's hearty congratulations and good wishes.

For the first time in its history, then, the Society will have four investigators, including three Fellows, at work under its auspices during the coming Session. This will be the nearest possible approach to the complete realisation of Sir William Macleay's scheme for the endowment of research which existing circumstances permit for the present. The oversight of these varied and seriously undertaken attempts to enlighten ignorance and broaden and deepen knowledge has now become part of the

Society's regular work, and its import may not be lost sight of. Perhaps it may help to remind us of this if I state that, with the close of the current Session, the total amount of the salaries paid to the Society's investigators will be £6,600, in addition to the sum spent on the equipment and maintenance of the Bacteriological Laboratory.

In October, in response to a request from the West Australian Natural History Society at Perth, the Council, whose action was afterwards heartily endorsed by the Society, forwarded a letter to the Premier of West Australia strongly supporting the appeal of the West Australian naturalists that Barrow Island, remarkable for unique species of *Macropus*, *Perameles*, *Mus* and *Malurus*, should be set aside as a reserve, and should not be leased for sheep-farming. The Council in consequence received with much gratification a courteous personal letter from the Premier of West Australia, informing them that the request to reserve the island had been granted by the West Australian Government.

In August the general question of the welfare of the indigenous flora and fauna, and the best means of their protection, was discussed at a large meeting. Messrs. A. J. North, of the Australian Museum, Frank Farnell, Chairman of the National Park Trust, F. J. W. Harrison, Secretary of the Trustees of the Kuring-Gai Chase, F. M. Rothery, Secretary of the Animals' Protection Society, J. H. Maiden, Secretary of the Royal Society of New South Wales, and R. Etheridge, Curator of the Australian Museum, attended and gave the views of their respective Societies or Institutions. A sub-committee was appointed to confer with the other Societies so as to promote cooperation in an appeal to the Government. The sub-committee met twice, but owing to various causes no practical result has yet been achieved.

The year 1908 being the Jubilee of the Theory of Natural Selection as propounded by Charles Darwin and Alfred Russel Wallace in 1858, it was decided to send a letter of congratulation on the occasion to Dr. Wallace in residence at Broadstone, England. The letter was accordingly drawn up and despatched, and in September a courteous reply of thanks was received from

the veteran Biologist. This letter is preserved in the archives of the Society.

The present year is alike the Centenary of Darwin's birth (February, 1809) and the Jubilee of the publication of the "Origin of Species" (November, 1859). If opportunity arises, the Society will doubtless take steps to join in the celebrations.

It is gratifying to learn that the University of Sydney is establishing Chairs of Agriculture and Veterinary Science. For the material development of the State it is eminently desirable that all the main industries should be in close touch with the exponents of pure science, the manufacturers of knowledge. It is a truism that theory and practice react upon one another to the gain of both, and both the State and the University will do better work if the University realizes the practical needs of the State, and the State becomes imbued with the broader outlook of the University.

It is also satisfactory to know that the State Government has established a Bureau of Micro-Biology, which will be under the direction of a distinguished former Member of the Society, Dr. Tidswell, who will have working with him a scientific staff of four investigators. We gladly welcome this addition to the fighting forces of Science in the State.

The Report of the Commissioners of Forestry has been received by the Government, but up to the present no action has been taken. It is earnestly to be hoped that the Government will give practical and prompt effect to the recommendations of the Commissioners, and that, before it is altogether too late, a wise policy of protection and control of our invaluable and unique forests will be adopted. The care and improvement of our forests is probably the most urgent of the duties of our Government, and should be placed well above and beyond all considerations of party. As it is, the nation appears to be blind to the wanton destruction of one of its most valuable and permanent assets.

I have to thank Mr. Maiden for the opportunity of showing you an advance copy of his work, "Sir Joseph Banks: 'The Father of Australia,'" and I have pleasure in commending it to

your favourable notice. Notwithstanding the disadvantage of being cut off from the important sources of information about Sir Joseph Banks which are only accessible to a biographer who lives in, or can visit, England, Mr. Maiden has succeeded in producing a work which will go a considerable way in supplying a long felt want. Many Australians to whom the existing biographical sketches and eulogia are not available for various reasons, have been patiently waiting to be supplied with a book which will bring home to them more fully and intelligibly the personality of Sir Joseph Banks and those of his associates in whom we are especially interested, and their share in or connection with the colonisation of Australia. The compilation of this meritorious and useful book has been a labour of love on Mr. Maiden's part. No presentation copies are promised, so that the entire sum accruing from the sale of the work may be added to the fund to be raised for providing some permanent memorial of Banks.

The "Nimrod," with the expedition led by the intrepid Lieutenant Shackleton, has returned from Antarctica, and our heroic Member, Professor David, is amongst us again, after a strenuous year of hardships and labours most abundant, including the ascent of Mount Erebus and a personal visit to the Magnetic South Pole. It is difficult to express our joy at his safe return in terms of reasonable enthusiasm. Our hearts are all lighter to know that he is back again, and they are all the lighter because Mrs. David's heart is lighter. We shall await with the liveliest anticipation the accounts which Professor David and his good comrades, including our fellow-Member Mr. Mawson, have in store for us, of their adventures and investigations in the Great Lone South.

Last year I endeavoured to put before you what I believe to be the true relations between Science and Good Government, with illustrations of the most urgent needs of the State for the scientific development of our resources. This year, with your permission, I will not discuss a general subject, but rather lay before you a result of the special work to which I have devoted myself during the last ten years, the study of the Australian

Algæ. And I think, at this stage, that the most useful publication I can make is a classified list of the known forms of our algal flora, as far as concerns the groups of Brown and Red Seaweeds. In 1863, Harvey published his Synopsis, enumerating 719 species. In 1880, Sonder, in Mueller's *Fragmenta* (Vol.xi.) gave an increased list of 923 forms. I have reckoned in both lists only the species of *Fucoideæ* and *Florideæ*. Since the latter date, several collections of Australian species have been referred to experts in Europe, and new species have been described by J. G. Agardh, Reinbold and others. Agardh has especially produced order out of chaos amongst the very numerous forms of *Sargassum* in a classical Monograph. Regrouping and rearrangement have resulted from the work of Schmitz and Falkenberg. Finally De Toni has produced his magnificent *Sylloge Algarum*, and incorporated in it most of the additions and re-casting. The names now accepted are in many cases altered from those used by Harvey in his *Phycologia Australica*, which is the only work generally available to Australian students. In the appended List, then, I have given the species as recorded in De Toni, following his classification as far as published, adding species since described, and giving, as far as I am able, the general geographical distribution of the species. The coasts only, N., S., E., W., are indicated, since details are wanting for anything like a precise extent of the range of most of the forms. The List includes about 1050 species. Harvey's names, where altered, are given as synonyms.

REVISED LIST OF THE *FUCOIDEÆ* AND *FLORIDEÆ*
OF AUSTRALIA.

FUCOIDEÆ (Ag.) J. Ag.

Order CYCLOSPORINÆ Aresch.

Family SARGASSACEÆ (Deene.) Kuetz.

SARGASSUM Ag.

Subgen. PHYLLOTRICHA (Aresch.) J. Ag.

S. heteromorphum J. Ag. S., T.

S. halitrichum (Aresch.) J. Ag. W., S.

- S. sonderi* J.Ag. S.W., S., T.
S. muriculatum J.Ag. S., T.
S. linearifolium (Turn.) Ag. S., E.
S. peronii (Mert.) Ag. W., N.
S. decurrens (R.Br.) Ag. W., E.
S. boryi Ag. W., N.
S. scabripes J.Ag. N.
S. varians Sond. W., S., T.
S. decipiens (R.Br.) J.Ag. S., T.
S. trichophyllum J.Ag.
S. verruculosum (Mert.) Ag. S., T., N.Z.

Subgen. ARTHROPHYCUS J.Ag.

- S. robustum* J.Ag. W., E.
S. bracteolosum J.Ag. S., T.
S. lævigatum J.Ag. T., E.
S. fallax Sond. W.
S. paradoxum (R.Br.) Harv. S.
S. globularicefolium J.Ag. S.E.
S. vestitum (R.Br.) Ag. S., T.
S. rhynchophorum J.Ag. T.
S. gunnianum J.Ag. T.
S. grande J.Ag. S., T.
S. undulatum J.Ag. S., T.
S. ensifolium (Ag.) J.Ag. W., S.
S. erosum J.Ag. E.
S. lacerifolium (Turn.) J.Ag. S.W.
S. bifforme Sond. S.W.
S. tristichum (Grev. & Ag.) Sond. S.W., S.
S. amalice Grun. E., Norfolk I.
S. membranaceum J.Ag. S., T.

Subgen. EUSARGASSUM J.Ag.

- S. angustifolium* (Turn.) Ag. N.
S. carpophyllum J.Ag. N.
S. flavicans (Mert.) Ag. N.

- S. fissifolium* (Mert.) J. Ag. N.
S. cristatum J. Ag. S.
S. swartzii (Turn.) Ag. N.
S. binderi Sond. N.(?), Norfolk I.
S. ligulatum Ag. W.
S. subalatum Sond. W.
S. obovatum Harv. N.
S. berberifolium J. Ag. W.
S. cristefolium J. Ag. W.
S. spinifex Ag. W., N., E., Norfolk I.
S. lophocarpum J. Ag. S., E.
S. ilicifolium (Turn.) Ag. N.
S. microcystum J. Ag. E.
S. biserrula J. Ag. W., N.
S. cinctum J. Ag. N.
S. coriifolium J. Ag. N. E.
S. claviferum J. Ag.
S. opacum J. Ag. N.
S. myriocystum J. Ag. N. E.
S. parvifolium (Turn.) Ag. N.
S. filifolium Ag. W., N. W.
S. pachycarpum J. Ag. T.
S. stenophyllum J. Ag. N., Norfolk I.
S. lanceolatum J. Ag. N. W.
S. desvauxii (Mert.?) Ag. W., S.
S. torvum J. Ag. N.
S. vulgare Ag. S.
S. neurophorum J. Ag. E.
S. acinaria (Turn.) J. Ag. N.
S. leptopodium J. Ag. S.
S. merrifieldiae J. Ag. S.
S. podocanthum Sond. S. W.
S. polyacanthum J. Ag. S. E.
S. spinuligerum Sond. W., S., E., N. Z.
S. godeffroyi Grun. E., Norfolk I.
S. cystocarpum Ag. N. E.

- S. granuliferum* Ag. N.E.
S. aciculare Grun. E.
S. gracile J. Ag. N.
S. polycystum Ag. N.
S. baccularia (Mert.) Ag. N.
S. plagiophyllum (Mert.) Ag. N.
S. siliquosum J. Ag. N.
S. fragile J. Ag. E.

CARPOPHYLLUM Grev.

- C. phyllanthus* (Turn.) Hook. & Harv. S.W., S.E. (F.v.M.), N.Z.

TURBINARIA Lamour.

- T. conoides* Kuetz. N.
T. decurrens Bory. N.
T. trialata Kuetz. W.
T. ornata J. Ag. N.
T. gracilis Sond. W.

SEIROCOCCUS Grev.

- S. axillaris* (R.Br.) Grev. S., T.

SCYTOTHALIA Grev.

- S. dorycarpa* (Turn.) Grev. S.W., S., T.

CYSTOPHORA J. Ag.

- C. uvifera* (Ag.) J. Ag. S., T.
C. cephalornithos (Lab.) J. Ag. S., T.
C. platylobium (Mert.) J. Ag. S., S.E., T.
C. pectinata (Grev. & Ag.) J. Ag. S.W.
C. xyphocarpa Harv. T.
C. racemosa Harv. S.W., S.
C. scalaris J. Ag. T. (Sonder), N.Z.
C. distenta J. Ag. W. (Sonder), N.Z.
C. retorta (Mert.) J. Ag. W., S., T., N.Z.
C. retroflexa (Labill.) J. Ag. S.W., S., T., E., N.Z.
C. dumosa (Grev.) J. Ag. S., N.Z.
C. siliquosa J. Ag. S.

- C. torulosa* (R.Br.) J.Ag. S., N.Z.
C. botryocystis Sond. S.
C. grevillei (Ag.) J.Ag. W., S., T.
C. spartioides (Turn.) J.Ag. S., T., E.
C. brownii (Turn.) J.Ag. W., S.
C. monilifera J.Ag. W., S., T., E.
C. thysanoclada J.Ag. W.
C. subfarcinata (Mert.) J.Ag. S.W., S.
C. polycystidea Aresch. S., E.
C. paniculata (Turn.) J.Ag. S., T., E.

CYSTOPHYLLUM J.Ag.

- C. onustum* (Mert.) J.Ag. W.
C. muricatum (Turn.) J.Ag. W., S., T., E.

CYSTOSEIRA Ag.

- C. abrotanifolia* Ag. var. *macrocarpa* Kuetz.(Sonder).
C. prolifera J.Ag. W.

SCABERIA Grev.

- S. agardhii* Grev. S.W., S., T., N.Z.
S. rugulosa J.Ag. S., T.

PHYLLOSPORA Ag.

- P. comosa* (Labill.) Ag. S.W., S., T., E.

CARPOGLOSSUM Kuetz.

- C. confluens* (R.Br.) Kuetz. S., T.
C. quercifolium (R.Br.) J.Ag. S.W., N.Z.
C. angustifolium (Sond.) J.Ag. W.

Family FUCACEÆ (Lamour.) Kjellm.

HORMOSIRA Endl.

- H. banksii* (Turn.) Decne. W., S., T., E., N.Z.
H. gracilis Kuetz.
H. sieberi (Bory) Decne. Norfolk I. } Probably varieties of
H. labillardieri (Bory) Mont. } *H. banksii*.

H. nodularia (Mert.) Decne. W.

H. articulata (Forsk.) Zanard. N. (= *Cystosira articulata* J. Ag.).

MYRIODESMA Decne.

M. serrulatum (Lamour.) Decne. W.

M. leptophyllum J. Ag. S. W.

M. integrifolium Harv. S., T.

M. latifolium Harv. W.

M. tuberosum J. Ag. S. W.

M. quercifolium (Bory) J. Ag. S. W., S., T., N. Z.

M. calophyllum J. Ag. S.

XIPHOPHORA Mont.

X. billardierii Mont. S., T.

X. chondrophylla (R. Br.) Harv. S., T., N. Z.

Family HIMANTHALIACEÆ Kjellm.

HIMANTHALIA Lyngb.

H. (?) australis Sond. W.

Family DURVILLEACEÆ Oltm.

SARCOPHYCUS Kuetz.

S. potatorum (Labill) Kuetz. S., T.

SPLANCHNIDIUM Grev.

S. rugosum (L.) Grev. S., T., E.

NOTHEIA Bail. & Harv.

N. anomala Bail. & Harv. S., T., N. Z.

Order TETRASPORINÆ De Toni.

Family DICTYOTACEÆ (Lamour.) Zanard.

GYMNOSORUS J. Ag.

G. variegatus J. Ag. E.

G. nigrescens (Sond.) J. Ag. W., E.

ZONARIA (Draparn.) J. Ag.

Z. diesingiana J. Ag. S., E., Norfolk I.

Z. crenata J. Ag. W., S.

Z. turneriana J. Ag. W., S., T.

HOMŒSTRICHUS J.Ag.

- H. sinclairii* (H. & H.) J.Ag. S., E.
H. stuposus (R.Br.) J.Ag. S.
H. canaliculatus J.Ag. S.
H. spiralis J.Ag. S.W.

CHLANIDOTE J.Ag.

- Ch. microphylla* (Harv.) J.Ag. S.

LOBOPHORA J.Ag.

- L. nigrescens* J.Ag. S.

TAONIA J.Ag.

- T. australasica* J.Ag. S.

PADINA, Adans.

- P. pavonia* (L.) Lamour. E., Norfolk I.
P. commersonii Bory. N., W.
P. australis Hauck. N.
P. fraseri (Grev.) J.Ag. W., E.

SPATHOGLOSSUM Kuetz.

- S. cornigerum* J.Ag. E.
S. macrodontum J.Ag. N.
S. grandifolium J.Ag. S.

HALISERIS Targ.-Tozz.

- H. polypodioides* (Desf.) Ag. T., E.
H. woodwardia (R.Br.) J.Ag. N.E.
H. muelleri Sond. S., T.
H. acrostichoides J.Ag. S., T.
H. australis Sond. W., N.
H. pardalis Harv. W.
H. crassinervia Zanard. Lord Howe I.
H. plagiogramma Mont. A. (Zanardini), Norfolk I.

DICTYOTA Lamour.

- D. vittarioides* J.Ag. S.
D. latifolia J.Ag. S.
D. nigricans J.Ag. S., T.



- D. bartayresiana* Lamour. N.
D. apiculata J. Ag. S.
D. dichotoma (Huds.) Lamour. E
D. ocellata J. Ag. T., N.Z.
D. prolificans A. & E. S. Gepp E.
D. diemensis Sond. T.
D. sandvicensis Sond. N.
D. fenestrata J. Ag. S.
D. radicans Harv. N.
D. ciliata J. Ag. W., Norfolk I
D. robusta J. Ag. S.
D. bifurca J. Ag. S., N.
D. alternifida J. Ag. S., N.
D. furcellata Ag. (Gaudichaud).
D. polyclada Kuetz. W.

PACHYDICTYON J. Ag.

- P. furcellatum* (Harv.) J. Ag. W., S.
P. minus (Sond.) J. Ag. S.W.
P. paniculatum J. Ag. S.W., S., T

DILOPHUS J. Ag.

- D. gunnianus* J. Ag. S., T.
D. fasciculatus J. Ag. S., T.
D. taeniiformis J. Ag. W., S.
D. opacus J. Ag. S.
D. wilsoni J. Ag. S.
D. angustus J. Ag. S.
D. marginatus J. Ag. S.
D. fastigiatus (Sond.) J. Ag. W., S.
D. moniliiformis J. Ag. W.
D. foliosus J. Ag. S.
D. tener J. Ag. S.

LOBOSPIRA Aresch.

- L. bicuspidata* Aresch. S.W., S.

Order PHÆOZOOSPORINÆ Thuret.

Family CUTLERIACEÆ Zanard.

CUTLERIA Grev.

C. multifida (Sm.) Grev. S. Not listed by De Toni.

Family LAMINARIACEÆ (Bory) Rostaf.

A DENOCYSTIS Hook. & Harv.

A. lessonii Hook. f. & Harv. T., N.Z.

ECKLONIA Hornem.

E. radiata (Turn.) J. Ag. W., S., T., E., N.Z.

E. lanciloba Sond. S.

E. stenophylla J. Ag. S.

MACROCYSTIS Ag.

M. pyrifer (Turn.) Ag. S., T., S.E.

Family SPOROCHNACEÆ (Reichb.) Decne.

BELLOTIA Harv.

B. eriophorum Harv. S., T.

PERITHALIA J. Ag.

P. inermis (R. Br.) J. Ag. S., T., S.E.

= *Carpomitra inermis* Kuetz.

= *C. siliquosa* J. Ag. T.

ENCYOTHALIA Harv.

E. cliftoni Harv. W.

SPOROCHNUS Ag.

S. comosus Ag. W., S., T.

S. herculeus J. Ag. T.

S. radicyformis (R. Br.) Ag. W., S., T., S.E.

S. scoparius Harv. W., S.W.

S. moorei Harv. E.

S. apodus Harv. T.

S. obovatus Kuetz. S.

S. sphaerocephalus Kuetz. S.

S. (?) cryptocephalus Kuetz. S.

Family SPERMATOCHNACEÆ Kjellm.

SPERMATOCHNUS Kuetz.

S. australis Kuetz.

Family STILOPHORACEÆ (Naeg.) DT. et Levi.

STILOPHORA J.Ag.

S. rhizodes (Ehrh.) J.Ag. S., T. Doubtfully identical.*S. australis* Harv. T.

Family CHORDARIACEÆ (Ag.) Zanard.

MYRIONEMA Grev.

M. leclancherii (Chauv.) Harv. T.

EUDESME J.Ag.

E. virescens (Carm.) J.Ag. S., T. Doubtfully identical.*E. australis* (Harv.) J.Ag. S., T.(= *Liebmannia australis* Harv.).

BACTROPHORA J.Ag.

B. filum (Harv.) J.Ag. W., S.?*B. vermicularis* J.Ag. S., T.*B. nigrescens* (Harv.) J.Ag. S., T.= *Cladosiphon nigricans* Harv.

MYRIOCLADIA J.Ag.

M. sciurus Harv. S., E.

POLYCEREA J.Ag.

P. ramulosa J.Ag. T.

CLADOSIPHON Kuetz.

C. zostericola Harv. S.W., S.

CORYNOPHLÆA Kuetz.

C. cystophoræ J.Ag. S.

LEATHESIA Gray.

L. difformis (L.) Aresch. S., T. Doubtfully identical.

LIEBMANNTIA J.Ag.

L.(?) *harveyana* J.Ag. T.

CHORDARIA Ag.

C. cladosiphon Kuetz. S.

= *Cladosiphon chordaria* Harv.

C. dictyosiphon (Harv.) Kuetz. S.

= *Cladosiphon dictyosiphon* Harv.

C. incurvata J. Ag. T.

Family ELACHISTACEÆ Kjellm.

ELACHISTA Duby.

E. australis J. Ag.

Family STRIARIACEÆ Kjellm.

STICTYOSIPHON Kuetz.

S. decaisnei (Hook. f. & Harv.) Murray. T. Doubtfully identical.

(= *Nereia australis* Harv.?).

Family ENCELIACEÆ (Kuetz.) Kjellm.

PHYLLITIS Kuetz.

P. fascia (Muell.) Kuetz. E.

COLPOMENIA Derb. & Sol.

C. sinuosa (Roth.) Derb. & Sol. W., S., E., N.

= *Asperococcus sinuosus* Bory.

HYDROCLATHRUS Bory.

H. cancellatus Bory. W., S., E., N., Norfolk I.

ASPEROCOCCUS Lamour.

A. bullosus Lamour. W., T.

= *A. turneri* Hook.

A. echinatus (Mert.) Grev. W. (Harvey). Not listed by De

Toni.

SPHACELARIA Lyngb.

S. biradiata Asken. S.

S. borneti Hariot. ?

S. pulvinata Hook. f. & Harv. S.

S. divaricata Mont. Torres Sts.

CLADOSTEPHUS Ag.

C. spongiosus (Lightf.) Ag. S., T., E.*C. verticillatus* (Lightf.) Ag. S.

STYPOCAULON Kuetz.

S. paniculatum (Suhr) Kuetz. S.W., S., T., E., N.E., N.Z.= *Sphacelaria paniculata* Suhr.*S. funiculare* (Mont.) Kuetz. S., N.Z.

PHLOIOCAULON Geyl.

P. spectabile Reinke. S.

XANTHOSIPHONIA J. Ag.

X. watsii J. Ag. S.

Family ECTOCARPACEÆ (Ag.) Kuetz.

PYLAIELLA Bory.

P. littoralis (L.) Kjellm. (Grunow).

ECTOCARPUS Lyngb.

E. simpliciusculus Ag. E. (Askenasy).*E. indicus* Sond. E. (Askenasy).*E. siliculosus* (Dillw.) Lyngb. W., S., T.*E. fasciculatus* (Griff.) Harv. W., S., T.*E. granulatus* Ag. (Kuetzing).*E. sordidus* Harv. T.

FLORIDEÆ Lamour.

BANGIOIDEÆ De Toni.

Family BANGIACEÆ (Zanard.) Berth.

BANGIA Lyngb.

B. ciliaris Carm.Subsp. *pulchella* Harv. S., T.*B. sp.* E.

PORPHYRA Ag.

P. woolhousiae Harv. T.

WILDEMANIA De Toni.

W. laciniata (Lightf.) De Toni. W., S., T., E.

EU-FLORIDEÆ De Toni.

Order NEMALIONINÆ Schmitz.

Family HELMINTHOCLADIACEÆ (Harv.) Schmitz.

BATRACHOSPERMUM Roth.

B. moniliforme Roth. S., T.*B. dillenii* Bory. T.= *B. atrum* Harv.*B. vagum* Ag. T.*B. sp.* E. (Lucas).

GULSONIA Harv.

G. annulata Harv. S., T.

CHANTRANSIA (DC.) Schmitz.

C. polyrhiza (Harv.) De Toni. S.*C.*(?) *radicans* (Harv.) De Toni. W.*C.*(?) *botryocarpa* (Harv.) De Toni. S.W.All recorded by Harvey under *Callithamnion*.

HELMINTHOCLADIA J.Ag.

H. australis Harv. W.*H. densa* (Harv.) Schmitz. S., T.= *Nemalion insigne* Harv.

HELMINTHORA J.Ag.

H. divaricata (Ag.) J.Ag. W., S.*H. tumens* J.Ag. S.

LIAGORA Lamour.

L. orientalis J.Ag., forma. S.*L. viscida* (Forsk.) Ag. W., prob. S., T.*L. cliftoni* Harv.) J.Ag. W., S.= *Galauzaura cliftoni* Harv.*L. cheyneana* Harv. W., S.*L. rugosa* Zanard. Norfolk I.var. *vieillardii* Grun.*L. australasica* Sond. W.

Omitted by J. Agardh.

TIAROPHORA J. Ag.

T. australis J. Ag. S.

Family CHÆTANGIACEÆ Schmitz.

SCINAIA Bivona.

S. furcellata (Turn.) Bivon. T., N.Z.*S. moniliformis* J. Ag. S.

GLOIOPHLŒA J. Ag.

G. scinaoides J. Ag. W.

BRACHYCLADIA Sond.

B. marginata (Soland.) Schmitz. W., E.

GALAXAURA Lamour.

G. umbellata (Esper) Lamour. W..= *G. obtusata* Harv.*G. elongata* J. Ag. N.E., Norfolk I.*G. collabens* J. Ag. S.W.*G. lapidescens* (Soland.) Lamour. W.*G. janioides* Lamour. ?*G. fasciculata* Kjellm. [Okamura, Bot. Mag. 1904.]

CHÆTANGIA Kuetz.

C. lingula Harv. T.*C. flabellatum* Harv. T.

Family GELIDIACEÆ (Kuetz.) Schmitz.

BINDERELLA Schmitz.

B. neglecta Schmitz. W.Included in *Bindera splachnoides* by Harvey.

WRANGELIA Ag.

W. nitella Harv. W.*W. mucronata* Harv. S., T.*W. myriophylloides* Harv. W., S.*W. velutina* Harv. W., S.*W. gunniana* J. Ag. T.

- W. tenella* Harv. W.
W. jeannerettii Hook f. & Harv. T.
W. protensa Harv. S., T.
W. halurus Harv. W., S.
W. verticillata Harv. S.
W. crassa Hook. f. & Harv. W., S., T.
W. wattsi Harv. W., S.
W. abietina Harv. W.
W. clavigera Harv. S.
W. ballioides J.Ag. T.
W. nobilis Harv. S., T.
W. setigera Harv. S, T
W. penicillata Ag W. Doubtfully identical.
W. plumosa Harv. S., T., E.
W. princeps Harv. W., S.

GELIDIUM Lamour.

- G. rigidum* (Vahl) Grev. Norfolk I.
G. australe J.Ag. S.
G. glandulæfolium Hook. f. & Harv. S., T.
G. asperum (Mert.) Grev. S., T.
G. proliferum Harv. W.

PTEROCLADIA J.Ag.

- P. lucida* (R.Br.) J.Ag. W., S., E., N.Z.
P. capillacea (Gmel.) Born. & Thur. E., Norfolk I.

Order GIGARTININÆ Schmitz.

Family ACROTYLACEÆ Schmitz.

ACROTYLUS J.Ag.

- A. australis* J.Ag. W., S.

PELTASTA J.Ag.

- P. australis* J.Ag. S.

HENNEDYA Harv.

- H. crispa* Harv. W.

Family GIGARTINACEÆ Schmitz.

ECTOCLINIUM J. Ag.

E. dentatum J. Ag. T.*E. latifrons* J. Ag. S.

IRIDÆA Bory.

I. australasica J. Ag. S., T.*I. foliifera* Harv. T.= *Rhodoglossum foliiferum* Harv.*I. harveyi* J. Ag. T.= *Rhodoglossum lanceolatum* Harv.*I. polycarpa* Harv. T.= *Rhodoglossum polycarpum* (Harv.) J. Ag.*I. prolifera* J. Ag. S., T.= *Rhodoglossum proliferum* J. Ag.*I. purpurea* J. Ag. T.= *Rhodoglossum purpureum* J. Ag.*I. latissima* (Hook. f. & Harv.) Grun. T.?, N. Z.*I. lubrica* Suhr. Insufficiently known.

GIGARTINA Stackhouse.

G. brachiata Harv. S., T.*G. aciculifera* Zanard. T.*G. binderi* Harv. T.*G. flabellata* J. Ag. S., T.*G. disticha* Sond. W.*G. pinnata* J. Ag. S., T.*G. congesta* Zanard. T.*G. livida* (Turn.?) J. Ag. S., T.*G. wehlicæ* Sond. S.*G. ancistroclada* Mont. T.*G. circinnalis* Zanard. S.*G. pumila* Zanard. S.*G. gigantea* J. Ag. S., T.*G. radula* (Esp.) J. Ag. T.*G. orbicularis* Zanard. S.*G. lanecata* J. Ag. S.

G. flagelliformis Sond. W.

Perhaps a species of *Rhabdonia* (De Toni).

STENOGRAMMA Harv.

S. interruptum (Ag.) Mont. T.

S. leptophyllum J.Ag. S.

GYMNOGONGRUS Mart.

G. fastigiatus Harv. T.

G. irregularis Zanard. Lord Howe I.

MYCHODEA Harv.

M. terminalis Harv. S., T.

M. membranacea Harv. W., S., T.

M. carnosa Harv. W., S., T.

M. pusilla (Harv.) J.Ag. S.

=*Acanthococcus pusillus* Harv.

M. fastigiata (Harv.) J.Ag. S.

=*Hypnea fastigiata* Harv.

M. hamata Harv. S., T.

=*Acanthococcus ewingii* Harv.

M. compressa Harv. S.

M. nigrescens Harv. S.

M. disticha Harv. T.

M. halymenioides Zanard. Lord Howe I.

M. zanardinii De Toni & Levi. Lord Howe I.

M. foliosa (Harv.) J.Ag. S.

=*Gymnogongrus foliosus* Harv.

M. obtusangula (Harv.) De Toni(?). S.E.

=*Acanthococcus obtusangulus* Harv.

M. gracilaria (Sond.) De Toni(?). S.

=*Acanthococcus gracilaria* Sond.

DICRANEMA Sonder.

D. revolutum (Ag.) J.Ag. W., S.

D. grevillei Sond. W., S.

D. filiforme Sond. W.

D. setaceum Sond. E.

CALLOPHYLLIS Kuetz.

- C. obtusifolia* J.Ag. S.
C. gigartinoides J.Ag. S.
C. alvicornis J.Ag.
C. cervicornis Sond. S.
C. harveyana J.Ag. S., T.
 =*C. obtusifolia* Harv., non J.Ag.
C. marginifera J.Ag. S.
C. ramentacea J.Ag. S.
C. lambertii (Turn.) Grev. W. rare, S., T.
C. coccinea Harv. T. Includes *C. carnea* J.Ag.
C. microcarpa Zanard. T.
C. australis Sond. W.
C. fimbriata Hook. f. & Harv. T.

POLYCÆLIA J.Ag.

- P. fastigiata* Harv. T.
P. laciniata J.Ag. W.
P. chondroides J.Ag. S.
P. australis J. Ag.

CALLYMENIA J.Ag.[=KALLYMENIA].

- C. cribrosa* Harv. S., T.
C. tasmanica Harv. S., T., E.
C. nitophylloides J.Ag. E.

GLAPHYROMENIA J.Ag.

- G. pustulosa* J.Ag. S.

MEREDITHIA J.Ag.

- M. nana* J.Ag. S.
M. polycælioides J.Ag. S., T.

HORMOPHORA J.Ag.

- H. australasica* J.Ag. S.

GELINARIA Sond.

- G. ulvoidea* Sond. S.W.
G. harveyana J.Ag. S.

Family RHODOPHYLLIDACEÆ Schmitz.

CATENELLA Grev.

C. opuntia (Good. & Woodw.) Grev. E.*C. procera* J.Ag. E.

MERISTOTHECA J.Ag.

M. tasmanica J.Ag. T.

GLOIOPHYLLIS J.Ag.

G. barkzrice (Harv.) J.Ag. S.= *Rhodophyllis barkericæ* Harv.*G. engelhardtii* Reinb. S.

RHODOPHYLLIS Kuetz.

R. bifida (Good. & Woodw.) Kuetz. W.*R. volans* Harv. S.W., S*R. blepharicarpa* Harv. W.*R. ramentacea* (Ag.) J.Ag. S.= *Calliblepharis ramentacea* J.Ag.*R. membranacea* Harv. S., T.*R.?* *gunnii* Harv. S., T.*R. multipartita* Harv. S., T.*R. brookeana* J.Ag. S.W., S.*R. tenuifolia* (Harv.) J.Ag. W.= *Callophyllis tenuifolia* Harv.*R. goodwinia* J.Ag. T.*R. hypneoides* Harv. S., T.*R. marginalis* J.Ag. S.

ERYTHROCLONIUM Sond.

E. angustatum Sond. S.*E. sonderi* Harv. W.*E. muelleri* Sond. S.*E. pyriferum* J.Ag. W.

RHABDONIA Harv.

R. nigrescens Harv. S., T.*R. coccinea* Harv. S., T.

- R. dendroides* Harv. S.
R. charoides Harv. S.
R. verticillata Harv. S., T.
R. globifera (Lamour.) J. Ag. W.
R. clavigera J. Ag. S.
R. robusta (Grev.) J. Ag. S., E.
 = *Solieria australis* Harv.
R. umbellata Zanard. T.
R. mollis Harv. S.
R. racemosa J. Ag. S.
R. hamata Zanard. S.
R. patens Harv. W.
R. compressa J. Ag. T.

EUCHEUMA J. Ag.

- E. spinosum* (L.) J. Ag. N.
E. gelatinæ (Esp.) J. Ag. N.
E. speciosum (Sond.) J. Ag. S. W., T.

ARESCHOUGIA Harv.

- A. congesta* (Turn.) J. Ag. S.
 Includes *A. gracilarioides* Harv. W.
A. laurencia (Hook. & Harv.) Harv. W., S., T.
A. stuartii Harv. S., T.
A. intermedia J. Ag. S.
A. ligulata Harv. W.
A (?) *sedoides* Harv. W.

THYSANOCLADIA Endl.

- T. costata* Harv. W.
T. dorsifera (Ag.) Endl. W.
T. coriacea (Sond.) Harv. W.
T. harveyana J. Ag. W., S.
T. angustifolia J. Ag. W.
T. laxa Sond. S., E.
T. oppositifolia (Ag.) J. Ag. W.

Order RHODYMENINÆ Schmitz.

Family SPHEROCOCCACEÆ (Dum.) Schmitz

PHACELOCARPUS Endl. & Dies.

P. complanatus Harv. S., T.*P. alatus* Harv. W., S., T., E.*P. labillardieri* (Mert.) J. Ag. W., S., T., N.Z.*P. apodus* J. Ag. S.*P. sessilis* Harv. S.*P. densus* Aresch. S.

HERINGIA J. Ag.

H. filiformis Harv. W., S.

STENOCLADIA J. Ag.

S. furcata (Harv.) J. Ag. S.= *Heringia furcata* Harv.*S. cliftoni* J. Ag. W.= *Areschougia conferta* Harv. pars.*S. harveyana* J. Ag. W., S.= *Areschougia conferta* Harv. pars.*S. corymbosa* J. Ag. W.*S. ramulosa* J. Ag. S.= *Areschougia dumosa* Harv.*S. sonderiana* J. Ag. W.

NIZYMENIA Sonder.

N. australis Sond. S., T.

GELIDIOPSIS Schmitz.

G. (?) acrocarpa (Harv.) Schmitz. N.

SARCODIA J. Ag.

S. palmata Sond. N.*S. marginata* J. Ag. S.*S. ciliata* Zanard. Lord Howe I.

TREMATOCARPUS Kuetz.

T. concinnus (R. Br.) J. Ag. Kent I.= *Dicurella concinna* (R. Br.) J. Ag.

MELANTHALIA Mont.

- M. abscissa* (Turn.) Hook. f. & Harv. T.
M. concinna (R.Br.?) J. Ag. S.
M. obtusata (Lab.) J. Ag. S., T.
M. polydactylis J. Ag. E.

CURDIÆA Harv.

- C. laciniata* Harv. S., T.
C. (?) meredithiæ J. Ag. T.
C. (?) irvineæ J. Ag. W.

SARCOCLADIA Harv.

- S. obesa* Harv. S.W.

GRACILARIA Grev.

- G. lichenoides* (L.) Harv. N.E.
G. lucasii A. & E. S Gepp. E.
G. taenioides J. Ag. N. = *G. lemania* Sond.
G. aculeolata Aresch. S.
G. fruticosa Harv. W.
G. ramulosa J. Ag. S.W.
G. spinescens (Kuetz.) J. Ag. T. Doubtfully identical.
G. secundata Harv. E.
G. harveyana J. Ag. W.
G. furcellata Harv. W.
 = *G. confervoides* of Harvey's Synopsis.
G. textorii Suring. E.
G. pannosa (Harv.) J. Ag. W.
 = *Calliblepharis preissiana* J. Ag.
G. corniculata (R.Br.) J. Ag. S.
G. canaliculata (Kuetz.) Sond. N.E.
G. polyclada Sond. N.E.

CORALLOPSIS Grev.

- C. minor* (Sond.) J. Ag. N.
C. urvillei (Mont.) J. Ag. N.
C. (?) umbellifera Zanard. S.

TYLOTUS J. Ag.

- T. obtusatus* (Sond.) J. Ag. W., S.
= *Curdiaea obtusata* Harv.

MERRIFIELDIA J. Ag.

- M. ramentacea* (Ag.) J. Ag. W., S.

HYPNEA Lamour.

- H. musciformis* (Wulf.) Lamour. W., E.
H. episcopalis Hook. & Harv. W., S., T.
H. valida J. Ag. W., S.
H. seticulosa J. Ag. W., S., T.
H. cenomyce J. Ag. W.
H. (?) rugulosa Mont. N. E.

RHODODACTYLIS J. Ag.

- R. rubra* (Harv.) J. Ag. W. = *Chondria rubra* Harv.
R. bulbosa (Harv.) J. Ag. T. = *Chondria bulbosa* Harv.

ERYTHRONEMA J. Ag.

- E. ceramioides* J. Ag. S.

Family RHODYMENIACEÆ (Naeg.) J. Ag.

FAUCHEA Bory & Mont.

- F. nitophylloides* J. Ag. E.
F. coronata (Harv.) J. Ag. S.
= *Callophyllis coronata* Harv.

GLOIODERMA J. Ag. = HOREA Harv.

- G. australis* J. Ag. S., T. = *Horea polycarpa* Harv.
G. fruticosum (Harv.) J. Ag. S.
= *Horea fruticulosa* Harv.
G. wilsonis (J. Ag.) De Toni. S.
G. halymenioides (Harv.) J. Ag. W.
= *Horea halymenioides* Harv.
G. tasmanicum Zanard. S., T.
= *Horea speciosa* Harv.

HYMENOCLADIA J. Ag.

- H. dactyloides* (Sond.) J. Ag. W.
 = *Gracilaria dactyloides* Sond.
H. gracilarioides J. Ag. W.
 = *Gracilaria ramalina* Harv.
H. filiformis J. Ag. W.
H. subulosa J. Ag. S. W.
H. ceratoclada J. Ag. S.
H. ramalina (Harv.) J. Ag. S. W.
H. usnea (R. Br.) J. Ag. S.
H. divaricata (R. Br.) Harv. S. W.
H. polymorpha (Harv.) J. Ag. S., T.
 = *Rhodymenia polymorpha* Harv.
H. conspersa (Harv.) J. Ag. W., S.
 = *Culliblepharis conspersa* Harv.
H. husseyana (J. Ag.) De Toni. S.
 = *Chrysymenia husseyana* J. Ag.

STICTOSPORUM Harv.

- S. nitophylloides* (Harv.) J. Ag. W.
 = *Rhodophyllis nitophylloides* Harv.

CORDYLECLADIA J. Ag.

- C. furcellata* (Harv.) J. Ag. S.
 = *Gymnogongrus furcellatus* Harv.

RHODYMENIA Grev.

- R. corallina* (Bory) Grev. T. Doubtfully identical.
R. foliifera Harv. W., S., T., N. Z.
R. linearis J. Ag. W., S., T.
R. australis (Sond.) Harv. W., S., E.
R. prolificans Zanard. T.
R. stenoglossa J. Ag. S.
R. pinnulata Zanard. T.

E P Y M E N I A Kuetz.

E. halymenioides J. Ag. S, T.

E. (?) cuneata (Harv.) J. Ag. T.

= *Rhodymenia cuneata* Harv.

E. wilsonii Sond. S.

De Toni includes here *E. obtusa* Grev. Pacific forms.

E. membranacea Harv. S., T.

S E B D E N I A Berth.

S. ceylanica (Harv.) Heydr. N.E.

S. (?) gelatinosa J. Ag. S.

S. (?) cliftoni (Harv.) De Toni. W.

= *Halymenia cliftoni* Harv. pars.

S. (?) kallymenioides (Harv.) J. Ag. W.

= *Halymenia kallymenioides* Harv.

H A L I C H R Y S I S (Schousb.) Schmitz.

H. (?) concrescens (J. Ag.) De Toni. E.

H. (?) meredithiana (J. Ag.) De Toni. E.

= *Chrysymenia meredithiana* J. Ag.

C H R Y S Y M E N I A J. Ag.

C. (?) digitata (Harv.) J. Ag. E.

= *Gloiosaccion (?) digitatum* Harv.

C. uvaria (L.) J. Ag. E.

C. obovata Sond. W., S., T., E.

C. brownii (Harv.) J. Ag. W., S., T.

= *Gloiosaccion brownii* Harv.

C. coccinea Harv. T.

B I N D E R A Harv.

B. splachnoides Harv. W., S.

B. saccata (Harv.) J. Ag. T.

= *Halymeniu saccata* Harv.

B. kaliformis J. Ag. S.

B. (?) ramosa J. Ag. S.

A M P H I P L E X I A J. Ag.

A. hymenocладиoides J. Ag. S.

CHAMPIA Desv.

- C. parvula* (Ag.) J.Ag. W., S., T., E., N.
C. affinis (Hook. f. & Harv.) J.Ag. W., S., T.
C. obsoleta Harv. S., T.
C. compressa (?) Harv. W., S.
C. tasmanica Harv. W., S., T.

GASTROCLONIUM Kuetz.

- G. reflexum* (Chauv.) Kuetz. ?Australia (J.Ag.).
G. (?) *zostericum* (Harv.) J.Ag. W.
 = *Lomentaria zostericola* Harv.

CHYLOCLADIA Grev.

- C. clavellosa* (Turn.) Grev. ?T.(Harv.)
C. monochlamydea J.Ag. S.
C. fruticulosa Reinb. S.
 Perhaps = *C. caespitosa* Harv.
C. corynephora J.Ag. S.
C. ramsayana J.Ag. E.
C. gelidioides Harv. E.
 ?*Chondrothamnion australe* Kuetz. A.
 ?*Chondrosiphon novæ-hollandiæ* Kuetz. A.

ERYTHROCOLON J.Ag.

- E. cliftoni* (Harv.) J.Ag. W.
 = *Chylocladia cliftoni* Harv.
E. muelleri (Sond.) De Toni. S.
 = *Chylocladia muelleri* Harv.

PLOCAMIUM Lamour.

- P. hamatum* J.Ag. E., Norfolk I.
P. leptophyllum Kuetz. W., S., T., E.
 Includes Australian forms recorded as *P. coccineum* (Huds.)
 Lyngb.
P. preissianum Sond. S.W.
P. angustum (J.Ag.) Hook. f. & Harv. S., T.
P. costatum (J.Ag.) Hook. f. & Harv. W., S., T.

- P. gracile* J. Ag. T.
P. nidificum (Harv.) J. Ag. W., S.
P. mertensii (Grev.) Harv. W., S., T.
P. procerum (J. Ag.) Harv. W., T.
P. patagiatum J. Ag. S.
P. dilatatum J. Ag. T.

Family DELESSERIACEÆ (Naeg.) Schmitz.

MARTENSIA Hering.

- M. speciosa* Zanard. Lord Howe I.
M. australis Harv. W., T.
M. elegans Hering W., S., E.
M. denticulata Harv. S. W.
M. gigas Harv. T.

RHODOSERIS Harv.

- R. cartilaginea* Harv. & Grev. W.

NITOPHYLLUM Grev.

- N. pulchellum* Harv. W.
N. crispum (Kuetz.) J. Ag. S., T.
N. gunnianum Harv. S., T.
N. cartilagineum Harv. W.
N. proliferum J. Ag. S.
N. monanthos J. Ag. A. (J. Ag.).
N. endivæfolium (Hook. f. & Harv.) J. Ag. S., T.
 = *Delesseria endivæfolia* Harv.
N. fallax J. Ag. S.
N. erosum Harv. W., S.
N. pristoideum Harv. S.
N. gattyanum J. Ag. T.
N. ciliolatum Harv. W., E.
N. minus (Sond.) Harv. W.
N. affine Harv. S., T.
N. multipartitum Hook. f. & Harv. S., T.
N. parvifolium J. Ag. S.
M. caulescens J. Ag. S.
N. polyanthum J. Ag. S., T.

- N. validum* J.Ag. S.
N. curdianum Harv. S.
N. hymenema Zanard. T.
N. obsoletum Zanard. T.

PLATYCLINIA J.Ag.

- P. stipitata* (Harv.?) J.Ag. S., T.
P. crozieri (Hook. f. & Harv.) J.Ag. S. Doubtfully identical.
P. (?) purpurea J.Ag. S.
P. crispata (Harv.) J.Ag. Doubtfully identical.

PACHYGLOSSUM J.Ag.

- P. marginiferum* J.Ag. W.
P. engelhardtii J.Ag. S.
P. ovale J.Ag. S.
P. husseyanum J.Ag. S.

HERPOPHYLLUM J.Ag.

- H. australe* J.Ag. S.

HYPOGLOSSUM Kuetz.

Mostly recorded as species of *Delesseria* by Harvey.

- H. crispatum* (Harv.) J.Ag. W.
H. spathulatum (Kuetz.) J.Ag. W., E.
 = *D. hypoglossoides* Harv.
H. serrulatum (Harv.) J.Ag. E.
H. dendroides (Harv.) J.Ag. W.
H. microdontum J. Ag. S.
H. heterocystideum J.Ag. S.
H. revolutum (Harv.) J.Ag. W.
H. undulatum J.Ag. S.W.
H. protendens J.Ag. S.
H. armatum J.Ag. S.
H. marginatum J.Ag. A.(J.Ag.).

CHAUVINIA Harv.

- C. coriifolia* Harv. W., S.

• HETERODOXIA J.Ag.

- H. denticulata* (Harv.) J.Ag. W.
 = *Delesseria denticulata* Harv.

PHITYMOPHORA J.Ag.

- P. imbricata* J.Ag. S.=*Chauvinia imbricata* Harv.
 =*Delesseria rigida* Harv.

APOGLOSSUM J.Ag.

- A. ruscifolium* (Turn.) J.Ag. W., T.
A. tasmanicum (F.v.M.) J.Ag. T.
 =*Delesseria tasmanica* F.v.M.

HEMINEURA Harv.

- H. frondosa* Harv. S.W., T.
H.(?) *wilsonis* J.Ag. S.

HALICNIDE J.Ag.

- H. similans* J.Ag. W., T., E.
 =*Delesseria lyalli* Harv. pars.

CALOGLOSSA Harv.

- C. leprieurii* (Mont.) J.Ag. S. T.

SARCOMENIA Sond.

- S. miniata* (Ag.) J.Ag. E. Doubtfully identical.
S. rhizocarpa Harv. W.
S. mutabilis (Harv.) J.Ag. W., S
S. corymbosa J.Ag. S.
S. dasyoides Harv. S.
S. victorie (Harv.) J.Ag. S.
S. dolichocystidea J.Ag. S.
S. tenera (Harv.) J.Ag. W., S.
S. hypneoides Harv. W.
S. delesserioides Sond. W., S.

SONDERELLA Schmitz.

- S. linearis* (Harv.) Schmitz S.
 =*Amansia linearis* Harv.

CLAUDEA Lamour.

- C. elegans* Lamour. W., S., T.

SONDERIA F.v.M.

S. bennettiana (Harv.) F.v.M. E.

= *Claudea bennettiana* Harv.

Family BONNEMAISONIACEÆ (Trev.) Schmitz.

LEPTOPHYLLIS J.Ag.

L. conferta (R.Br.) J. Ag. S., T.

= *Cladhymenia conferta* Harv.

PTILONIA J.Ag.

P. australasica Harv. S, T.

P. subulifera J. Ag. S., T.

DELISEA Lamour.

D. elegans (Ag.) Mont. W., S., T.

D. hypneoides Harv. S., T.

D. serrata Kuetz. T, E.

D. pulchra (Grev.) Mont. W., S., T., E.

D. fimbriata Lamour. A. (Herb Lamour.).

ASPARAGOPSIS Mont.

A. delilei Mont. ?Australia.

A. sandfordiana Harv. W.

A. armata Harv. W., S., T., E.

Family RHODOMELACEÆ (Reichb.) Harv.

Subfamily LAURENCIÆ (Harv.) Zanard.

LAURENCIA Lamour.

L. filiformis (Ag.) Mont. W., S., T.

L. forsteri (Mert.) Grev. W., S, T., E.

L. affinis Sond. W.

L. casuarina J. Ag. S.

L. heteroclada Harv. W., S., Norfolk I.

L. dendroidea J. Ag. W., Norfolk I.

= *L. obtusa* var. *majuscula* Harv.

L. rigida J. Ag. N.

= *L. papillosa* var. Harv.

= *L. botryoides* var. *minor* Harv.

- L. cruciata* Harv. W., S.
L. obtusa (Huds.) Lamour. S., T., E.
L. cymosa Kuetz.
L. tasmanica Hook. f. & Harv. T.
L. botryoides (Turn.) Gaill. S.
L. elata (Ag.) Harv. W., S., T.
L. luxurians J.Ag. W.
 =*L. elata* var. *luxurians* Harv.
L. concinna Mont. W., N., Norfolk I.
L. grevilleana Harv. W.

CORYNECLADIA J.Ag.

- C. clavata* (Sond.) J.Ag. W., S.
 =*Chondria clavata* Harv.
C. umbellata J.Ag. W., S.

JANCZEWSKIA Solms-Laubach.

- J. tasmanica* Falkenb. S., T.

Subfamily CHONDRIÆ (Kuetz.) Schmitz.

CLADURUS Falkenb.

- C. elatus* (Sond.) Falkenb. S.W.
 =*Rytiphloea elata* Harv.

MASCHALOSTROMA Schmitz.

- M. fastigiatum* Falkenb. S.
 =*Alsidium* ? *comosum* Harv.

ACANTHOPHORA Lamour.

- A. dendroides* Harv. S.W.
A. orientalis J.Ag. N.

CÆLOCLONIUM J.Ag.

- C. umbellula* (Harv.) Reinb. W., S.
 =*Chondria umbellula* Harv.
C. verticillatum (Harv.) J.Ag. W., S., T.
 =*Chondria verticillata* Harv.

- C. opuntiioides* (Harv.) J. Ag. W., S.
 = *Chondria opuntiioides* Harv.
C. incrassatum J. Ag. S., T.

DOLICHOSCELIS J. Ag.

- D. clavifera* J. Ag. S., T.
D. disticha J. Ag. S.
D. gracilipes J. Ag. S.

CHONDRIA Ag.

- C. fusifolia* Hook. f. S., T.
C. lanceolata Harv. S. W.
C. arborescens J. Ag. S.
C. foliifera (J. Ag.) Falkenb. S.
C. ovalifolia J. Ag. S.
C. curdieana Harv. ms. S.
C. corallorhiza J. Ag. W.
C. succulenta (J. Ag.) Falkenb. W., S.
C. debilis Harv. W., S., T.
C. harveyana J. Ag. T.
 = *Chondria dasyphylla* Harv. pars.
C. cartilaginea J. Ag. A.

Subfamily POLYSIPHONIÆ (Kuetz) Schmitz & Falkenb.

LOPHURELLA Schmitz.

- L. pericladus* (Sond.) Schmitz. S., T.
 = *Rhodomela pericladus* Sond.
L. hookeriana (J. Ag.) Falkenb. S.

FALKENBERGIA Schmitz.

- F. vagabunda* (Harv.) Falkenb. S.(?), T.
 = *Polysiphonia vagabunda* Harv.
F. rufolanosa (Harv.) Schmitz. S. W.
 = *Polysiphonia rufolanosa* Harv.

POLYSIPHONIA Grev.

Oligosiphonia J. Ag.

- P. roeana* Harv. W.

- P. mollis* Hook. f. & Harv. W., S., T.
P. succulenta Harv. T.
P. abscissa Hook. f. & Harv. S., T.
P. laxa Harv. T.
P. crassiuscula Harv. T.
P. implexa Hook. f. & Harv. S.W.
P. sphacelarioides J.Ag. S.
P. infestans Harv. S.W.
P. ferulacea Suhr. W., T.
P. blandi Harv. S.
P. hookeri Harv. S., T.
P. longissima J.Ag. S.
P. hystrix Hook. f. & Harv. W., S., T.
P. mallardiæ Harv. W., S., T.
P. daveyæ Reinb. S.

Polysiphonia J.Ag.

- P. forcipata* Harv. W.
 = *P. forfex* Harv.
P. frutex Harv. S., T.
P. fuscescens Harv. S., T.
P. cancellata Harv. W., S., T.
P. aurata Harv. S.W.
P. atricapilla J.Ag. S.W.
P. virgata (Ag.) Spreng. W.?
P. rutilans Kuetz. A. Not well known.
P. dasyoides Zanard. T.
P. flavescens Zanard. T.
P. spinuligera Zanard. T.
P. macrарtha Zanard. T.
P. gelidii Zanard. Lord Howe I.
P. amœna Sond. S.
P. cœspitula Sond. S.
P. angustissima Kuetz. S.
P. argus Kuetz. S.

DIGENEA Ag.

- D. simplex* (Wulf.) Ag. N.

TOLYPIOCLADIA Schmitz.

T. glomerulata (Ag.) Schmitz. A. (Gaudichaud).

BRYOCLADIA Schmitz.

B. ericoides (Harv.) Schmitz. T.

= *Polysiphonia ericoides* Harv.

PITYOPSIS Falkenb.

P. tasmanica (Sond.) Falkenb. T.

= *Acanthophora tasmanica* Sond.

CHIRACANTHA Falkenb.

C. arborea (Harv.) Falkenb.

= *Acanthophora arborea* Harv. T.

C. valida (J.Ag.) Falkenb.

= *Polysiphonia valida* J.Ag. W., S.

Subfamily PTEROSIPHONIEÆ Falkenb.

APHANOCLADIA Falkenb.

A. delicatula (Hook. f. & Harv.) Falkenb. F.

= *Rytiphloea delicatula* H. & H.

POLLEXFENIA Harv.

P. pedicellata Harv. W., S., T.

P. lobata (Lamour. ?) Falkenb. S., T.

= *Jeannerettia lobata* Hook. f. & Harv.

P. crispata (Zanard.) Falkenb. S.

P. crenata J.Ag. S.

P. nana J.Ag. S.

DICTYMENIA Grev.

D. harveyana Sond. S., T.

D. interstincta J.Ag. W., S.

D. tridens (Mert.) Grev. W.

D. sonderi Harv. W.

D. angusta J.Ag. W., S.

D. spinulosa Kuetz. S.W.

D. myriacantha Kuetz. T.

SYMPHYOCLADIA Falkenb.

S. marchantioides (Harv.) Falkenb. N.E.

PTEROSIPHONIA Falkenb.

P. pennata (Roth.) Falkenb. A.(Harvey). Doubtfully identical.

Subfamily PACHYCHÆTÆ De Toni.

CHAMÆTHAMNION Falkenb.

C. schizandrum Falkenb. W., S.

=*Polysiphonia nigrita* Sond.

Subfamily LOPHOTHALIEÆ Schmitz & Falkenb.

BRONGNIARTELLA Bory.

B. australis (Ag.) Schmitz. W., S., T.

=*Polysiphonia cladostephus* Mont.

B.(!) patersonis (Sond.) De Toni. S., T.

=*Polysiphonia spinosissima* Harv.

B. strobilifera (J.Ag.) Schmitz. S.

B. sarcocaulon (Harv.) Schmitz. W., T.

=*Dasya sarcocaulon* Harv.

B. feredayæ (Harv.) De Toni. T.=*Dasya feredayæ* Harv.

B.(!) disticha Falkenb. S.

LOPHOCLADIA Schmitz.

L. harveyi (Kuetz.) Schmitz. W.=*Dasya lallemandi* Harv.

LOPHOTHALIA Kuetz.

L. verticillata (Harv.) Kuetz. T.

=*Dasya verticillata* Harv.

L. hormoclados J.Ag. S., T.=*Dasya hormoclados* J.Ag.

DOXODASYA Schmitz.

D. bolbochaete (Harv.) Falkenb. S., T.

=*Dasya bolbochaete* Harv.

D. lanuginosa (J. Ag.) Falkenb. S.

D. lenormandiana (J. Ag.) Schmitz. S.

=*Dasya lenormandiana* J.Ag.

Subfamily POLYZONIEÆ Schmitz.

EUZONIELLA Falkenb.

- E. incisa* (J. Ag.) Falkenb. S., T.
 = *Polyzonia incisa* J. Ag.
E. flaccida (Harv.) Falkenb. W., S.
 = *Polyzonia flaccida* Harv.
E. harveyana (Decaisne) Falkenb.
 = *Polyzonia harveyana* Decaisne.

LEVEILLEA Decaisne.

- L. jungermanniioides* (Mart. & Hering) Harv. W., N.E., Norfolk I.
 = *L. schimperi* Decaisne.
L. pectinata Decaisne.

POLYZONIA Suhr.

- P. elegans* Suhr. S.W. Doubtfully identical.

CLIFTONÆA Harv.

- C. pectinata* Harv. W., S.
C. semipennata (Lamour.) J. Ag. S

Subfamily HERPOSIPHONIEÆ Schmitz & Falkenb.

DIPTEROSIPHONIA Schmitz & Falkenb.

- D. dendritica* (J. Ag.) Falkenb. S.
 = *Polysiphonia dendritica* J. Ag.
D. prorepens (Ag.) Falkenb. S.W.
 = *Polysiphonia prorepens* J. Ag.

HERPOSIPHONIA Naegeli.

- H. rostrata* (Sond.) Falkenb. W.
 = *Polysiphonia rostrata* Sond.
H. pectinella (Harv.) Falkenb. S.W. = *P. pectinella* Harv.
H. versicolor (Hook. f. & Harv.) Falkenb. W., S., T.
 = *P. versicolor* Hook. f. & Harv.
H. monilifera (Hook. f. & Harv.) Falkenb. T.
 = *P. monilifera* Hook. f. & Harv.

- H. prorepens* (Harv.) Schmitz. S.W.=*P. prorepens* Harv.
H. filipendula (Harv.) Falkenb. W., S.=*P. filipendula* Harv.

HERPOPTEROS Falkenb.

- H. fallax* Falkenb. S., T.

LOPHOSIPHONIA Falkenb.

- L. prostrata* (Harv.) Falkenb. W.
 =*Polysiphonia prostrata* Harv.
L.(?) *neglecta* (Harv.) De Toni S.W.=*P. neglecta* Harv.
L.(?) *calothrix* (Harv.) De Toni. S.W.=*P. calothrix* Harv.

Among HERPOSIPHONIÆ De Toni includes

- Polysiphonia scopulorum* Harv. W.
P. pecten Aresch. S.

Subfamily RYTIPHLEÆ (Decaisne) Kuetz.

PROTOKUETZINGIA Falkenb.

- P. australasica* (Mont.) Falkenb. W., S.W.
 =*Rhodomela australasica* Mont.

KUETZINGIA Sond.

- K. canaliculata* (Grev.) Sond. W.
K. angusta Harv. W.
K. pectinella (Harv.) Falkenb. W.
 =*Dictymania pectinella* Harv.

AMANSIA Lamour.

- A. kuetzingioides* Harv. W., S.
A. dietrichiana Grunow. E.
A. daemelii (Sond.) J.Ag. N.E.
 =*Vidalia daemelii* Sond.
A. pumila (Sond.) J.Ag. N.E.
 =*Vidulia pumila* Sond.
A. mammillaris Lamour. A. (Lamour.).
A. pinnatifida Harv. S.W.

ENANTROCLADIA Falkenb.

- E. axillaris* Falkenb. S.W.
E. robinsonii (J.Ag.) Falkenb. Norfolk I.

RYTIPHLEA Ag.

- R. aculeata* Ag. W. = *R.*(?) *spinulosa* Harv.
R. compressa J.Ag. W.
R. merrifieldii J.Ag. W.
R. umbellifera J.Ag. Australia ?(J.Ag.).

VIDALIA Lamour.

- V. fimbriata* (R.Br.) J.Ag. N.E.
V. spiralis Lamour. W.
V. clifforti Harv. W.
V. intermedia J.Ag. W.
V. gregaria Falkenb. S.W.

OSMUNDARIA Lamour.

- O. prolifera* Lamour. W., S.W.
 = *Polyphacum proliferum* Ag.
O. intermedia (J.Ag.) De Toni. W.
 = *P. intermedium* J.Ag.

NEURYMENIA J.Ag.

- N. fraxinifolia* (Mert.) J.Ag. W.
 = *Dictymenia fraxinifolia* J.Ag.

LENORMANDIA Sond.

- L. hypoglossum* J.Ag. S.W.
L. marginata Hook. f. & Harv. T.
L. chauvinii Harv.
L. muelleri Sond. S.
L. spectabilis Sond. W., S.W.
L. pardalis J.Ag. S.
L. prolifera (Ag.) J.Ag. S., T.
 = *Rytiphleæ simplicifolia* Harv.
L. smithiæ (Hook. f. & Harv.) Falkenb. S., T.
 = *Polyphacum smithiæ* Hook. f. & Harv.

Subfamily HETEROCLADIÆ Decaisne.

TRIGENEA Sond.

T. australis Sond. & Lehm. W., S.= *Rhodomela trigenea* Harv.*T. umbellata* J. Ag. S.

HETEROCLADIA Decaisne.

H. australis (Decne.) W.

MICROPEUCE J. Ag.

M. strobiliferum J. Ag. S.

Subfamily RHODOMELEÆ Falkenb.

RHODOMELA.

R. preissii Sond. W.*R. erinacea* J. Ag. W.

Subfamily BOSTRYCHIEÆ Falkenb.

HOLOTRICHIA Schmitz.

H. comosa (Harv.) Schmitz. W.= *Alsidium? comosum* Harv.

WILSONÆA Schmitz.

W. dictyuroides (J. Ag.) Schmitz. S.= *Dasya dictyuroides* J. Ag.

BOSTRYCHIA Mont.

B. mixta Hook. f. & Harv. E.*B. wardii* Harv. E. Doubtfully identical with the Tongan form.*B. simpliciuscula* Harv. S.= *B. rivularis* Harv. Phyc. Austr. Pl. 176B.*B. harveyi* Mont. S., T.

Family CERAMIACEÆ (Bonnemaison) Naegeli.

Subfamily SPERMOTHAMNIEÆ Schmitz.

LEJOLISIA Borneo.

L. egagropila J. Ag. S.

SPERMOTHAMNION Aresch.

S. turneri (Mert.) Aresch. T. Doubtfully identical.

S. cymosum (Harv.) De Toni. W.

= *Callithamnion cymosum* Harv.

Subfamily GRIFFITHSIEÆ Schmitz.

GRIFFITHSIA Ag.

G. gunniana J. Ag. T.

G. ovalis Harv. S. W.

G. flabelliformis Harv. T.

G. monilis Harv. W., S., T.

G. crassiuscula Ag. A. (Mus. Paris).

G. teges Harv. W.

G. thyrigera (Thwait.) Grun. W. Norfolk I.

G. gracilis Harv. T.

Subfamily MONOSPOREÆ Schmitz.

BORNETIA Thuret.

B. binderiana (Sond.) Zanard. S. W.

= *Griffithsia binderiana* Sond.

B. (?) antarctica (Hook. f. & Harv.) De Toni. T.

= *Griffithsia antarctica* Hook. f. & Harv.

B. (?) meredithiana J. Ag. T.

MONOSPORA Solier.

M. australis (Harv.) J. Ag. W.

= *Corynospora australis* Harv.

M. gracilis (Harv.) J. Ag. W., S.

= *Corynospora gracilis* Harv.

M. arachnoides (Harv.) J. Ag. T.

= *Corynospora gracilis* Harv.

M. flabelligera (Harv.) Schmitz. W.

= *Callithamnion flabelligerum* Harv.

M. (?) licmophora (Harv.) De Toni. W., S.

= *Callithamnion licmophorum* Harv.

M. (?) griffithsioides (Sond.) De Toni. S., T.

= *Griffithsia setacea* Harv. quoad Austr. Spec.

- M.(?) elongata* (Harv.) De Toni. S., T.
= *Callithamnion elongatum* Harv.

PLEONOSPORIUM Naeg.

- P.(?) comatum* (J.Ag.) De Toni. S., T.

Subfamily CALLITHAMNIEÆ (Kuetz.) Schmitz.

CALLITHAMNION Lyngb.

- C. fastigiatum* Harv. T.
C. multifidum Harv. W.
C. corymbosum (Sm.) Lyngb.
C. laricinum Harv. W., S., T.
C. spinescens Kuetz. W.
C. ramulosum Sond. W.
C. aculeatum Harv. W.
C. muelleri Sond. S.
C. pulchellum Harv. W., S.
C. angustatum Hook. f. & Harv. T.
C. pusillum Harv. W.
C. longinode Harv. S.
C. ovuligerum Asken. S.

SEIROSPORA Harv.

- S.(?) byssoides* (Arnott) De Toni. T.

Subfamily SPONGOCLONIEÆ Schmitz.

SPONGOCLONIUM Sond.

- S. fasciculatum* J.Ag. S.
S. brounianum (Harv.) J.Ag. W.
= *Callithamnion brounianum* Harv.
S. wollastonianum (Harv.) J.Ag. S.W.
= *Callithamnion wollastonianum* Harv.
S. wilsonianum J.Ag. S.
S.(?) latissimum (Hook. f. & Harv.) De Toni. T.
= *Callithamnion latissimum* Hook. f. & Harv.
S. angustatum (Hook. f. & Harv.) De Toni. T.
= *C. angustatum* Hook. f. & Harv.

- S.*(?) *violaceum* (Harv.) De Toni. T.=*C. violaceum* Harv.
S. scopula (Harv.) De Toni. W.=*C. scopula* Harv.
S. scoparium J. Ag. S., T.
S.(?) *paradoxum* (Harv.) De Toni. S., T.=*C.*(?) *paradoxum* Harv.
S. dasyurum (Harv.) J. Ag. S.=*C. dasyurum* Harv.
S.(?) *crispulum* (Harv.) De Toni. W.=*C. crispulum* Harv.
S.(?) *debile* (Harv.) De Toni. W.=*C. debile* Harv.

HALO PLE GMA Mont.

H. preissii Sond. W., S., T.

Subfamily WARRENIEÆ Schmitz.

WARRENIA (Harv. ms.) Kuetz.

W. comosa Harv. T.

=*Callithamnion comosum* Harv.

Subfamily PTILOTEÆ Cramer.

EUPTILOTA Kuetz.

- E. articulata* (J. Ag.) Schmitz. W., S., T.=*Ptilota aculeata* J. Ag.
E. coralloidea (J. Ag.) Kuetz. W., S., T.=*P. coralloidea* J. Ag.
E. jeannerettii (Harv.) Schmitz. S., T.=*P. jeannerettii* Harv.

RHODOCALLIS Kuetz.

R. elegans Kuetz. S., T.=*Ptilota rhodocallis* Harv.

PTILOTA Ag.

P. hannaforðii Harv. S.

Subfamily DASYPHILEÆ Schmitz.

DASYPHILA Sond.

D. preissii Sond. W., S.

MUELLERENA Schmitz.

- M. watsii* (Harv.) Schmitz. S.=*Crouania watsii* Harv.
M.(?) *agardhiana* (Harv.) De Toni. S. W.
 =*Crouania agardhiana* Harv.
M.(?) *insignis* (Harv.) De Toni. S., T.=*Crouania insignis* Harv.

PSILOTHALLIA Schmitz.

- P. striata* (Harv.) Schmitz. W., S.=*Ptilota striata* Harv.
P.(?) siliculosa (Harv.) Schmitz. W., S.W.=*Ptilota siliculosa*
 Harv.

Subfamily CROUANIEE Schmitz.

BALLIA Harv.

- B. callitricha* (Ag.) Mont. W., S., T.
B. robertiana Harv. S., T.
B. mariana Harv. S.
B. scoparia Harv. S., T.
B. hamulosa J.Ag. S.

ANTITHAMNION Naegeli.

- A. verticale* (Harv.) J.Ag. W., S.=*Callithamnion verticale* Harv.
A. horizontale (Harv.) J.Ag. W.=*C. horizontale* Harv.
A. armatum (J.Ag.) De Toni W.=*C. armatum* J.Ag.
A.(?) hanowioides (Sond.) De Toni. W., S.=*C. hanowioides* Sond.
A. plumula (Ellis) Thur. S., T.=*C. plumula* Lyngb.
A. nodiferum J.Ag. S.=*C. nodiferum* J.Ag.
 =*C. simile* Harv. pars.
A. nigrescens J.Ag. S.
A. dispar (Harv.) J.Ag. S., T.=*C. dispar* Harv.
A. gracilentum (Harv.) J.Ag. W., S.=*C. gracilentum* Harv.
A.(?) australe (J.Ag.) De Toni.=*C. australe* J.Ag.
A. divergens (J.Ag.) De Toni. S., T.=*C. cruciatum* Harv.
A. mucronatum (J.Ag.) De Toni. W., S., T.=*C. mucronatum* J.Ag.
A.(?) preissii (Sond.) De Toni. W.=*C. preissii* Sond.
A.(?) delicatulum (Harv.) De Toni. S.W.=*C. delicatulum* Harv.

CROUANIA J.Ag.

- C. gracilis* J.Ag. T.
C. australis (Harv.) J.Ag. W., S., T.
 =*C. attenuata* var. *australis* Harv.
C. muelleri Harv. S.
C. vestita Harv. W., S.W.

LASIOTHALIA Harv.

L. hirsuta Harv. W., S.

L. (?) plumigera (Harv.) De Toni. S.

= *Callithamnion plumigerum* Harv.

L. (?) formasa (Harv.) De Toni. S.= *C. formosum* Harv.

L. (?) superbiens (Harv.) De Toni. S.= *C. superbiens* Harv.

GATTYA Harv.

G. pinnella Harv. W., S.

PTILOCLADIA Sond.

P. pulchra Sond. W., S.

Subfamily SPYRIDIEÆ J. Ag.

SPYRIDIA Harv.

S. biannulata J. Ag. S, T.= *S. filamentosa* Harv. pars.

S. breviarticulata J. Ag. N.

S. spinella Sond. W., Norfolk I.

= *S. filamentosa* Harv. pars.

S. opposita Harv. W., S., T.

S. prolifera Harv. W.

S. nobilis J. Ag. S.

S. wilsonis J. Ag. S.

S. squalida J. Ag. S.

S. dasyoides Sond. S.

BRACEBRIDGIA J. Ag.

B. australis J. Ag. S.

HALIACANTHA J. Ag.

H. incrustans J. Ag. S.

Subfamily CERAMIEÆ (Dumort) Schmitz.

CERAMIUM Wiggers.

C. macilentum J. Ag. S.

C. repens Harv. S.

C. ramulosum Hook. f. & Harv. S., T.

- C. fastigiatum* Harv. W., S.
C. australe Sond. W.
C. cliftonianum J.Ag. W.
C. tenuissimum (Lyngb.) J.Ag. W.
C. puberulum Sond. W., S.
C. miniatum Suhr. W., S., E.
C. stichidiosum J.Ag. T.
C. pusillum Harv. W., S.
C. subcartilagineum J.Ag. S., T.=*C. rubrum australe* Harv.
C. divergens J.Ag. T.
C. deslongchampii Chauv. T.(?) (Harvey).
C. monacanthum J.Ag. T.
C. isogonum Harv. W., S., T.
C. nodiferum J.Ag. S.
C. nobile J.Ag. S., T.
C. gracillimum Griff. & Harv. S., T.
C. æquabile J.Ag. S., T.
 =*C. diaphanum* Harv. quoad Austr. sp.
C. torulosum J.Ag. T.
C. excellens J.Ag. W., S., T.
C. clavulatum Ag. W., S., E.=*Centroceras clavulatum* Mont.
C. cinnabarinum (Gratel.) Hauck. S.
 =*Centroceras cinnabarinum* J.Ag.

Subfamily EPISPORIÆ Schmitz.

EPISPORIUM Moebius.

- E. centroceratis* Moeb. W.

Incertæ sedis.

THAMNOCARPUS Harv.

- T. gunnianus* Harv. W., S., T.
T. harveyanus J.Ag. T.
T. penicillatus (Harv.) J.Ag. S.=*Callithamnion penicillatum*
 Harv.
T. (?) glomeruliferus J.Ag. W., S.

Order CRYPTONEMINÆ.

Family CRYPTONEMIACEÆ.

SCHIZYMENIA J.Ag.

S. bullosa Harv. W.

NEMASTOMA J.Ag.

N. comosum Harv. S.*N. feredayæ* Harv. S., T.*N. palmatum* Harv. T.

HALYMENIA Ag.

H. floresia Ag. W., S.*H. lacerata* Sond. N.E.*H. muelleri* Sond. W.Prob.=*Nemastoma gelinarioides* Harv.*H. chondricola* Sond. W.*H. pusilla* Sond. W.*H. plana* Zanard. S.*H. speciosa* Zanard. T.

POLYOPES J.Ag.

P. constrictus J.Ag. W., S.

GRATELOUPIA Ag.

G. gigartinoides Sond. S.*G. prolifera* J.Ag. T.*G. dubia* Zanard. T.*G. filicina* Ag. E.*G. australis* J.Ag. S., E.

PRIONITIS J.Ag.

P. microcarpa J.Ag. W., S.*P. obtusa* Sond. N.E.

CRYPTONEMIA J.Ag.

C. decipiens Harv. W.*C. elata* Harv. W.*C. undulata* Sond. W., S., N.E.*C. capitellata* Sond. N.E.

THAMNOCLONIUM Kuetz.

- T. claviferum* J. Ag. S., T.
T. codioides J. Ag. S.
T. dichotomum J. Ag. E.
T. proliferum Sond. W.
P. lemsonianum Harv. W.
T. flabelliforme Sond. W.
T. spongioides J. Ag. W.
T. harveyanum Sond. W.

Family SQUAMARIACEÆ.

CRUORIA Fries.

- C. australis* Harv. W.

PEYSSONNELIA Decaisne.

- P. coccinea* J. Ag. W.
P. novæ-hollandiæ Kuetz. S.
P. gunniana J. Ag. T., E.
P. australis Sond. W., S., T.
P. multifida Harv. W., E.
P. rubra (Grev.) J. Ag. Norfolk I.

RHODOPELTIS Harv.

- R. australis* Harv. W.

Family CORALLINACEÆ.

MELOBESIA Aresch.

- M. membranacea* Lamour. N.E.
M. farinosa Lamour. W., N.
M. pustulata Lamour. E, Norfolk I.
M. patena Hook. f. & Harv. S.
M. granulata Kuetz. N.E.
M. lichenoides Ellis. Norfolk I.

LITHOTHAMNION Philippi

- L. darwini* Aresch. S.W.

MASTOPHORA Decaisne.

M. lamourouxii Decne. W., S.

M. plana Sond. W.

M. canaliculata Harv. S., T.

AMPHIROA Lamour.

A. australis Sond. W.

A. galaxauroides Sond. W.

A. anceps Lamour. W., E., Norfolk I.

A. ephedraea Lamour. W., S., E.

A. gracilis Harv. S.W., N.E.

A. elegans Hook. f. & Harv. S., T.

A. charoides Lamour. W., S., T.

A. similis Sond. W.

A. granifera Harv. S.

A. intermedia Harv. W.

A. stelligera Lamour. W., S., T.

A. nobilis Kuetz.

A. tasmanica Sond. T.

CHEILOSPORUM Aresch.

C. pulchellum Harv. W.

C. sagittatum Aresch. E.

ARTHROCARDIA Aresch.

A. wardii Aresch. S., E.

A. mallardiae Aresch. S., T.

JANIA Lamour.

J. micrarthrodia Lamour. W., S., T., Norfolk I.

var. *tenuissima* Sond. W., N.

J. rubens Lamour. N.E.

J. fastigiata Harv. W., S., N.E.

J. affinis Harv. W.

J. pedunculata Lamour. E.

J. natalensis Harv. E.

J. compressa Lamour.

CORALLINA Lamour

C. officinalis L. T.*C. pusilla* Sond. S.W., S.=*C. nana* Lenormand.*C. chilensis* Decne. E., Norfolk I.*C. clavigera* Kuetz. S.*C. pilifera* Lamour. W., S.*C. cuvieri* Lamour. W., S., T., E.var. *crispata* Aresch. S., T.var. *subulata* Aresch. W., S.var. *denudata* Sond. S.Includes *C. rosea* Lamour.*C. granifera* Ell. & Soland. ?*C. calliptera* Kuetz.*C. plumifera* Kuetz.

Corrigendum—p. 21, line 28, for *Galauzaura* read *Galaxaura*.

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Acting on the President's suggestion, it was unanimously resolved, on the motion of Mr. C. Hedley, seconded by Dr. Woolnough, that the very heartiest congratulations of the Members assembled at the Annual General Meeting on behalf of the Society, should be tendered to Professor and Mrs. David on the safe return of the former with the other members of the Expedition led by Lieutenant Shackleton, together with an expression of their appreciation of the admirable manner in which the Expedition had carried out its arduous work, and the magnificent results achieved.

As Mr. Lucas had received an official invitation to represent the Society at the Lord Mayor's Reception on Thursday night, 1st prox., it was resolved also, with the concurrence of the President elect, that the retiring President be deputed to deliver the Society's congratulations and message to Prof. David at the Lord Mayor's gathering.

On the invitation of the President, Rev. Joseph Capra, Doctor of Science and Agriculture, a visitor from Milan, briefly addressed the Meeting. The speaker said that, as some impromptu remarks on forestry questions, made on his arrival in Sydney, had attracted notice, he thought he could most suitably utilise the invitation extended to him by stating what repentant Italy was attempting to do in the way of reafforestation. Legislation was

now in force prohibiting, under severe penalties, the cutting down of a single tree without the knowledge and sanction of an inspector, whose duty it was to take cognizance of, and deal with, these matters. In addition to what the Italian Government was directly doing in the way of planting and forming nurseries, it was earnestly striving to create a national sentiment, by special efforts to diffuse knowledge; and to make tree-planting a national practice, by affording encouragement and the means for doing it. The aid of the children, too, was enlisted in the work of planting trees at specially arranged annual festivals—Arbor Days; they were taught also to take note of the progress and welfare of the young trees planted in preceding years, with interest and joy. In this way Italy was evincing the true repentance which manifests itself in action as well as in feeling. From what he had seen and heard during his visit, he thought that he was not mistaken in venturing to say that Australia might learn some useful lessons from the experience and practice of his fatherland.

Mr. J. H. Campbell, Hon. Treasurer, presented the balance sheet for the year 1908, duly signed by the Auditor, Mr. F. H. Rayment, F.C.P.A., Incorporated Accountant; and he moved that it be received and adopted, which was carried unanimously.